

C. Remarks

The claims are 2-26, 56-60, 63-65, 67-81 and 86-92, with claims 2, 65, 67 and 86 being independent. Claims 28-39 and 82-85 have been cancelled. Claim 67 has been amended to clarify the invention. Support for this amendment may be found throughout the specification and the claims. New claims 86-92 have been added. The new claims are based on claims 67, 69-73, 80 and 81. No new matter has been added. Reconsideration of the present claims is expressly requested.

Claims 2-26, 28-39, 56-60, 63-65 and 67-81 stand rejected under the judicially created doctrine of obviousness-type double patenting over claims 1-49 of U.S. Patent No. 6,538,170 B2.

Applicants intend to submit a Terminal Disclaimer in order to overcome this rejection when all remaining issues in this case have been resolved. It is requested that the Examiner contact Applicants' undersigned attorney when the claims are otherwise in condition for allowance.

Claim 28-35 and 37-39 stand rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over U.S. Patent No. 5,813,799 (Calcote) in combination with U.S. Patent No. 5,308,507 (Robson). While Applicants disagree with the Examiner's assertions, solely to expedite prosecution, Applicants have cancelled claims 28-35 and 37-39. Accordingly, this rejection is moot and should be withdrawn.

Claim 67, 68 and 74-79 stand rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Calcote in combination with Robson. The grounds of rejection are respectfully traversed.

Prior to addressing the merits of rejection, Applicants would like to briefly review some of the key features and advantages of the method recited in claims 67, 68 and 74-79. In this method, polluted soil is heated to produce a gas containing the pollutant. Then, this gas is mixed with chlorine gas and the mixture is irradiated with light to decompose the pollutant. The light irradiation of the mixed gas results in an efficient decomposition of pollutants, which were initially contaminating the soil. Thus, the present invention simultaneously solves two problems: decontaminating soil and decomposing pollutants.

Calcote is directed to removing pollutants from groundwater and soil by using heat. As acknowledged by the Examiner, this reference does not disclose or suggest a method for decomposing the released pollutants. The Examiner, however, alleged that Robson teaches a decomposition method as presently claimed. Applicants respectfully disagree.

Robson teaches decomposition of an organic compound, such as trichloroethylene, by an oxidizing solution containing oxidants, such as ozone produced by an electrolysis of a salt solution, with the optional use of UV light. It is clear that the decomposition in Robson is carried out in a liquid and not in a gaseous phase (see col. 3, lines 18-21 and 50-52). In fact, both the contaminants and the oxidants in Robson are in an aqueous solution. Accordingly, it is clear that Robson does not disclose or suggest mixing a gas containing a pollutant with chlorine gas and then irradiating the mixed gases with light. Therefore, Robson cannot be combined with Calcote to render the presently claimed invention unpatentable.

Applicants respectfully submit that new claims 86-92 are clearly patentable over Calcote and Robson. Specifically, neither Calcote nor Robson discloses or suggests extracting a gas containing a pollutant from polluted soil via a heating step in which the soil is mixed with an inorganic compound, which reacts exothermically with water.

Wherefore, Applicants respectfully request that all outstanding rejections be withdrawn and that the present case be passed to issue.

Applicants' undersigned attorney may be reached in our New York office by telephone at (212) 218-2100. All correspondence should continue to be directed to our address given below.

Respectfully submitted,



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